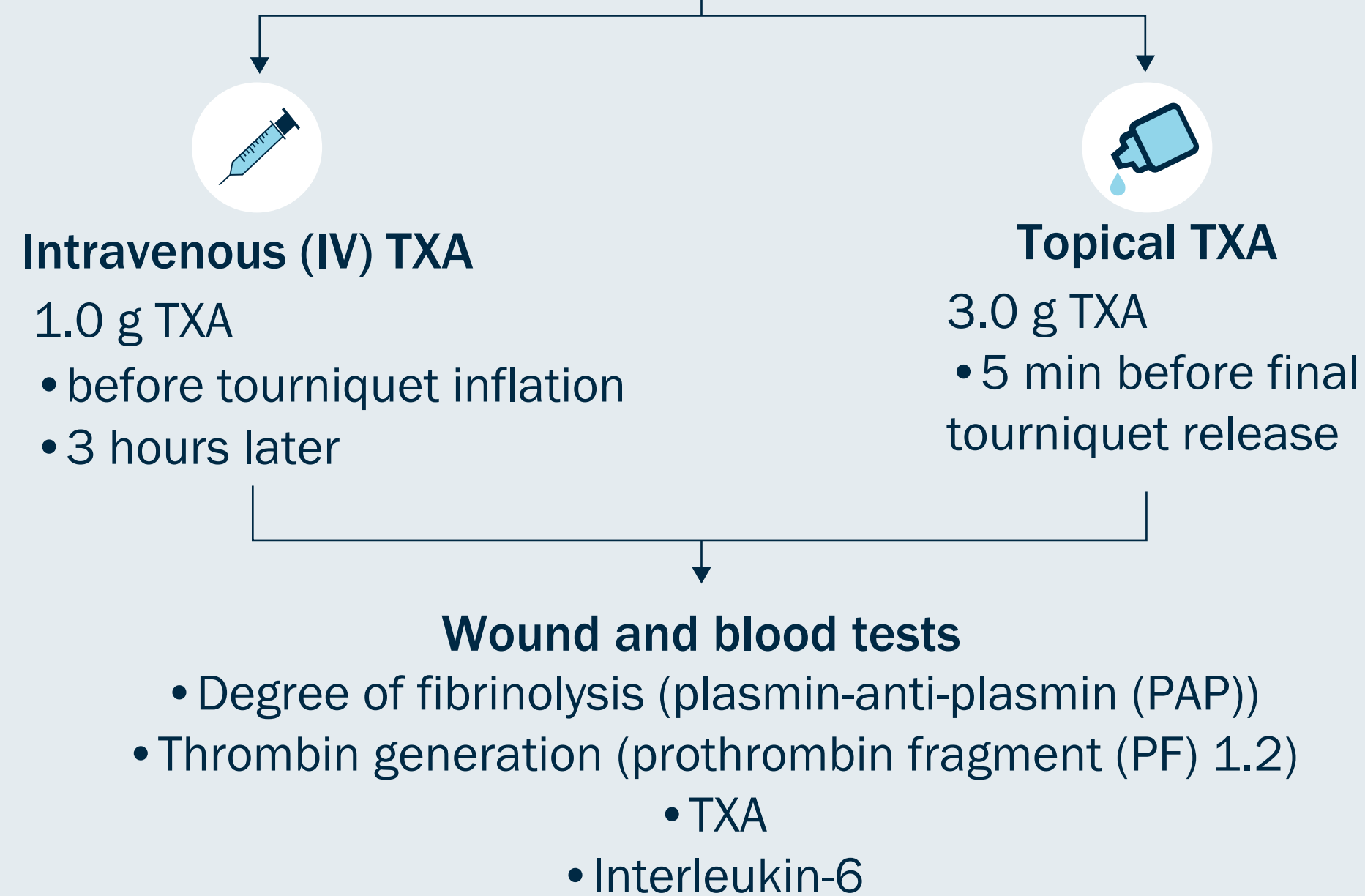


# Topical Versus Intravenous Tranexamic Acid for Blood Loss in Total Knee Arthroplasty



Tranexamic acid (TXA) can reduce blood loss in total knee arthroplasty (TKA), but the safest and most effective administration route is unclear

In a double blind randomized controlled study



1 h after tourniquet release  
(1 IV dose)



Degree of fibrinolysis comparable between both groups  
Therapeutic systemic TXA levels seen in topical group

4 h after tourniquet release

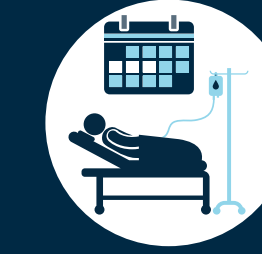


- IV group had lower degree of fibrinolysis than topical group
- No difference in thrombin generation between both groups

IV group  
(2 IV doses)



Calculated blood loss



Length of the hospital stay

Given that therapeutic systemic TXA levels were achieved with topical TXA, and that mechanisms of action, coagulation, and fibrinolytic profiles were similar between topical and single dose IV TXA, it may be simpler to use a single IV TXA dose when safety is a concern

Comparison of Topical and Intravenous Tranexamic Acid for Total Knee Replacement: A Randomized Double-Blinded Controlled Study of Effects on Tranexamic Acid Levels and Thrombogenic and Inflammatory Marker Levels

Jules-Elysee et al (2019)

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